

REMARKS

This application has been reviewed in light of the Office Action dated August 6, 2004. Claims 1-10 are presented for examination. Favorable reconsideration is requested.

The Examiner objected to the claims for informalities. Specifically, the Examiner stated that the claims recite mathematical expressions without identifying the variables used therein and requested that Applicants amend the claims to identify these variables. Applicants respectfully traverse this objection for the following reasons.

The M.P.E.P. provides the following guidance regarding the degree of clarity and particularity required in the claims:

The essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of:  
(A) The content of the particular application disclosure;  
(B) The teachings of the prior art; and  
(C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

M.P.E.P. § 2173.02. Applicants respectfully submit that one of ordinary skill in the art would readily understand the equations recited in the claims, particularly in view of the content of Applicants' disclosure, which more than adequately explains the meaning of the variables used in the equations. For example, Claim 1 itself explicitly defines the variables  $G_i$ ,  $\mu_i$ ,  $\alpha_i$ ,  $B$ , and  $\alpha_0$ , and the specification further defines these variables at paragraph 5 (coefficient of friction,  $\mu$ ), paragraph 6 (slip,  $G$ ), paragraph 12 (slope,  $\alpha$ ), and paragraphs 18 and 19 (coefficient  $B$ ). Moreover, the specification, at paragraph 20, defines the variables

H,  $H_0$ , *Stiffness*, and *Stiffness<sub>0</sub>*, etc. It is further submitted that to explicitly define every variable used in the claims would result in lengthy and unwieldy claims.

Accordingly, Applicants respectfully request withdrawal of the objection to the claims.

Claims 1-10 were provisionally rejected for obviousness-type double patenting over Claims 1-13 of U.S. Application No. 10/461,628 ("the '628 application") and Claims 1-13<sup>1</sup> of U.S. Application No. 10/460,007 ("the '007 application").

It is fundamental that "[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP § 2143.03 (citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). Moreover, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." MPEP § 2143.03 (quoting *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)). For at least the following reasons, Applicants respectfully submit that *prima facie* obviousness has not been established with respect to Claim 1.

Claim 1 of the present application recites, *inter alia*, a method for controlling the functioning of a tire that includes calculating a coefficient B by direct calculation or by a regression from a sufficient number of pairs of ( $\alpha_i$ ,  $G_i$ ) (where  $\alpha_i$  is the slope of the straight line passing through the origin and through each pair of values ( $G_i$ ,  $\mu_i$ ) of slip and corresponding coefficient of friction) so as to estimate the value of slope  $\alpha_0$  at

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<sup>1</sup> Applicants note that Claims 1-51 and 61 of the '007 application were cancelled in an Amendment filed August 16, 2004, rendering moot the rejection based on those claims. Nevertheless, Applicants' remarks are directed to the remaining claims in that case.

the origin; and using the slope  $\alpha_0$  in an indicator of the longitudinal stiffness of the tread pattern (see, e.g., paragraphs 20-23 of the specification).

By contrast, Claims 1-13 of the '007 application generally are directed to a method for testing a tire in terms of slip, in which a predetermined slip is applied to the tire, the longitudinal force  $F_{X1}$  of the tire is measured or estimated, and a value of the coefficient of friction  $\mu_1 = F_{X1}/F_{Z1}$  is calculated. The method further includes repeating these steps to calculate an optimum slip  $G_{Opt}$  to attain a predetermined value of the coefficient of friction.

Claims 1-13 of the '007 application do not even mention stiffness of a tread pattern, much less teach or suggest estimating the value of slope  $\alpha_0$  at the origin and using the slope  $\alpha_0$  in an indicator of the longitudinal stiffness of the tread pattern, in the manner recited in Claim 1. Moreover, the Examiner has not specifically identified anything in the claims of the '007, or elsewhere in the prior art, corresponding to these claim limitations and thus seems not to have considered "all words in [the] claim."

Accordingly, Claim 1 is believed to be patentable over Claims 1-13 of the '007 application.

The claims of the '628 application generally are directed to a system for controlling the stability of a vehicle, in which known values of longitudinal force are applied to a tire and the resulting coefficients of friction are determined. From these measurements, an optimal slip  $G_{Opt}$  is determined and the necessary longitudinal force to maintain that optimal slip is applied.

The claims of the '628 application also do not mention stiffness of a tread pattern, and also do not teach or suggest estimating the value of slope  $\alpha_0$  at the origin and

using the slope  $\alpha_0$  in an indicator of the longitudinal stiffness of the tread pattern, in the manner recited in Claim 1. Moreover, the Examiner has not specifically identified anything in the claims of the '628, or elsewhere in the prior art, corresponding to these claim limitations.

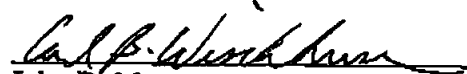
Accordingly, Claim 1 is believed to be patentable over the claims of the '628 application.

The other claims in this application are each dependent from independent Claim 1 and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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